MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

GAF Material Corporation
1361 Alps Road
Wayne, NJ 07470

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by the BCCO and accepted by the Building Code and Product Review Committee to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GAF Conventional Built-Up Roof System for Wood Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 03-0501.05 and consists of pages 1 through 19.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	BUR
Deck Type:	Wood
Maximum Design Pressure	-75 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
Leak Buster™ Matrix™ 307 Premium Asphalt Primer	3, 5, 55 gallons	ASTM D 41	Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing.
GAF Mineral Shield™ Granules	60 & 100 lb. bags	ASTM D 1863	Granules for surfacing of exposed asphalt, cold process cement or emulsion. GAF Mineral Shield™ Granules shall be used for flashing applications only.
Leak Buster™ Matrix™ 305 Fibered Asphalt Emulsion	5 gallons	ASTM 1227	Surface coating for smooth surfaced roofs.
Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating	1, 5 gallons	ASTM D 2824	Fibered aluminum coating.
LeakBuster™ Matrix™ 322 Elastomeric Roof Coating	55 gallons		Elastomeric roof coating.
LeakBuster™ Matrix™ Select Asphalt Emulsion Fibered 306	55 gallons		Asphalt emulsion fibered.
Leak Buster™ Matrix™ 204 Wet/Dry Roof Cement	1, 5 gallons	ASTM D-4586 ASTM D-3409	Refined asphalt blended with a mineral stabilizer and fibers. Permits adhesion to wet and dry surfaces.
RUBEROID® Modified Bitumen Flashing Cement	5 gallons	ASTM D 4586	Fiber reinforced, polymer modified Flashing cement
LeakBuster™ Matrix™ 201 Premium SBS Flashing Cement	5 gallons	ASTM D 4586	Asphalt flashing Cement
GAFGLAS® #75	39.37" (1 meter) wide	ASTM D 4601	Asphalt impregnated and coated glass mat base sheet.

Product	Dimensions	Test Specification	Product Description
GAFGLAS® #80 ULTIMA™ Base Sheet	39.37" (1 meter) wide	ASTM D4601	Asphalt impregnated and coated, fiberglass base sheet
GAFGLAS® Flex Ply™ 6	39.37" (1 meter) wide	ASTM D 2178	Type VI asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Ply 4	39.37" (1 meter) wide	ASTM D 2178	Type IV asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Mineral Surfaced Cap Sheet	39.37" (1 meter) wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.
GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet	39.37" (1 meter) wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules with factory applied layer of TOPCOAT® EnergyCote™.
GAFGLAS® STRATAVENT® Eliminator™ Perforated	39.37" (1 meter) wide	ASTM D 4897 D 3672	Fiberglass base sheet impregnated and coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations.
GAFGLAS® Flashing	Various		Asphalt coated glass fiber mat flashing sheet available in three sizes.
GAFGLAS® STRATAVENT® Eliminator™ Nailable	39.37" (1 meter) wide	ASTM D 4897 D 3672	Fiberglass base sheet impregnated and coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
RUBEROID® SBS Heat-Weld™ Smooth	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® SBS Heat-Weld™ Granule	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 170 FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ PLUS	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ PLUS FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 25	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® Modified Base Sheet	39.37" (1 meter) wide	ASTM D4601, Type II, UL Type G2 BUR	Premium glass fiber reinforced SBS modified base sheet

Product	Dimensions	Test Specification	Product Description
RUBEROID® 20	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	SBS modified asphalt base sheet and interply sheet reinforce with a glass fiber mat.
RUBEROID® Mop Granule	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® Mop Plus (Granule)	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® MOP Smooth	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-woven polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® MOP 170FR	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® MOP FR	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® TORCH Smooth	39.37" (1 meter) wide	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, smooth surface.
RUBEROID® TORCH Granule	39.37" (1 meter) wide	ASTM D 5147	Asphalt impregnated, coated felt, surfaced with mineral granule.
RUBEROID® TORCH PLUS (Granule)	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface.
RUBEROID® TORCH FR	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface.
RUBEROID® 170FR TORCH	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface.
RUBEROID® 30	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	Non-woven fiberglass mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® 30 FR	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	Non-woven fiberglass mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® ULTRACLAD®	39.37" (1 meter) wide	ASTM D 6298 ASTM D 5147	Woven fiberglass mat coated with Polymer modified asphalt and surfaced with aluminum, copper or stainless steel foil.
RUBEROID® Dual FR	39.37" (1 meter) Wide	ASTM D 6164 ASTM D 5147	Non-woven polyester and fiberglass mat coated with file retardant, polymer modified asphalt and surfaced with mineral granules.
Vent Stacks (metal and plastic)		TAS 100(A) ASTM D 1929 ASTM D 635	One way valve vent used to relieve built-up pressure within the roof system. GAF Vent Stacks are available in metal or plastic.

Product	Dimensions	Test Specification	Product Description
Leak Buster™ Matrix™ 302 Non Fibered Aluminum Roof Coating	5 gallons	ASTM D2824, Type I	Non-fibered aluminum pigmented, asphalt roof coating.
GAF Built-Up Roofing Asphalt	100 lb. cartons, bulk	ASTM D312, Types I, II, III and IV	Interply mopping and surfacing asphalt.
RUBEROID® MOD Asphalt, Asphalt L & Asphalt P	60 lb. kegs		SEBS modified asphalt.
Leak Buster™ Matrix™ 602	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Leak Buster™ Matrix™ 715	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
LeakBuster™ Matrix™ 531 WeatherCote™	2 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
SeamCote™	2, 5 gallons	proprietary	Elastomeric roofing membrane.
FireOut™	5, 55 gallons		Low VOC, fire barrier coating.
VersaShield®	350 sq ft. roll		Non-Asphaltic Fiberglass-Based Underlayment.
VersaShield® FB-1S	350 sq ft. roll		Non-Asphaltic Fiberglass-Based Underlayment.
VersaShield® FB-2S	350 sq ft. roll		Non-Asphaltic Fiberglass-Based Underlayment.
TOPCOAT® FireShield® MB	5, 55 gallons	ASTM D-412 ASTM D-21-96 ASTM D1475 ASTM E-1644	Elastomeric roofing membrane
Leak Buster™ Matrix™ 201 SBS Flashing Cement	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
Leak Buster™ Matrix™ 102 SBS Adhesive	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive.
Leak Buster™ Matrix™ 202 SBS Flashing Cement	5 gallons	ASTM D4586	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
Leak Buster™ Matrix™ 203 Plastic Roof Cement	5 gallons	ASTM D4586	Standard Plastic Asphalt Roofing Cement
Leak Buster™ Matrix™ 103 Cold Process Adhesive	5 gallons	ASTM D3019	Cold Applied Asphalt Adhesive.

Product	Dimensions	Test Specification	Product Description
Leak Buster™ Matrix™ 303 Fibered Aluminum Roof Coating	5 gallons	ASTM D 2824	Fibered aluminum coating.
Leak Buster™ Matrix™ 304 Non Fibered Aluminum Roof Coating	5 gallons	ASTM D2824, Type I	Non-fibered aluminum pigmented, asphalt roof coating.

APPROVED INSULATIONS:

Table 2

Product Name	Product Description	Manufacturer (With Current NOA)
EnergyGuard™ RA, RN	Polyisocyanurate foam insulation	BMCA
Composite A & N	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
EnergyGuard™ Fiberboard	Fiberboard insulation.	GAF Materials Corp.
EnergyGuard™ Permalite	Perlite insulation board.	GAF Materials Corp.
EnergyGuard™ GAFCANT™	Cut perlite board	GAF Materials Corp.
EnergyGuard™ Permalite Recover Board	Perlite recover board	GAF Materials Corp.
EnergyGuard™ Tapered Edge Strip	Tapered perlite board	GAF Materials Corp.
EnergyGuard™ Perlite	Perlite insulation board	GAF Materials Corp.
EnergyGuard™ High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
EnergyGuard™ Composite	Polyisocyanurate/wood fiberboard composite	BMCA
EnergyGuard™ Composite RA	Polyisocyanurate/wood fiberboard composite	BMCA
Wood Fiber	Wood fiber insulation board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
Dens Deck®, Dens Deck® Prime, Dens Deck® Dura Guard™	Water resistant gypsum board	G-P Gypsum Corp
Structodek	Wood fiber insulation board	Knight Celotex
Securock™	Fiber reinforced roof board	USG Corporation

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Drill-Tec™ #12 Standard, #14 and #15 extra Heavy Duty Fastener , Heavy Duty Roofing Fastener	Insulation fastener and Base Play fastener for steel, wood & concrete decks.	Various	GAF Materials Corp.
2.	Drill-Tec™ ASAP	Pre-assembled Drill-Tec™ Fasteners and metal and plastic plates.	Various	GAF Materials Corp.
3.	Drill-Tec™ #12 or #14 Standard screws with AccuTrac Plate	Base sheet fastening assembly.	Various	GAF Materials Corp.
4.	Drill-Tec™ Galvalume Plates	Round Galvalume stress plates.	3" and 3 ½"	GAF Materials Corp.
5.	Drill-Tec™ Polypropylene Plates	Round polypropylene stress plates.	3" and 3 ½"	GAF Materials Corp.
6.	Drill-Tec™ AccuTrac Plate	Square Galvalume® coated steel plate.	3" Square	GAF Materials Corp.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	J.I. 2B8A4.AM	4470	07.02.97
	J.I. 3B9Q1.AM	4470	01.08.98
	J.I. 0D0A8.AM	4470	07.09.99
	J.I. 0D1A8.AM	4470 - TAS 114	07.29.94
	J.I. 0Y9Q5.AM	4470 - TAS 114	04.01.98
	3029832	4470 - TAS 114	05.11.07
PRI Asphalt Technologies, Inc.	GAF-012-02-02	Physical Properties	11.06.01
	GAF-020-02-01	ASTM D 4977	02.01.02
IRT of S. Fl.	02-005	TAS 114	01.18.02
	02-014	TAS 114	03.22.02

APPROVED ASSEMBLIES

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type A: Anchor sheet mechanically fastened, all layers of insulation adhered with approved asphalt.

All General and System Limitations shall apply.

One or more layers of any of the following insulations. .

Insulation Layer (Table 2) (When applicable: Steel plate only =S, plastic plate only =P)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™, EnergyGuard™ Composite, EverGuard® ISO, EnergyGuard™ RA, EnergyGuard™ RA Composite		
Minimum 1" thick	N/A	N/A
EnergyGuard™ High Density Wood Fiber, EnergyGuard™ Recover Board, Wood Fiber,		
Minimum ½" thick	N/A	N/A
EnergyGuard™ Perlite		
Minimum ¾" thick	N/A	N/A
Fiberglas (Min. $^{15}/_{16}$" thick)	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on all isocyanurate applications.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Non-Asphaltic Fiberglass-Based Underlayment or Securock™.

Anchor sheet: GAFGLAS® #80 ULTIMA™ Base Sheet, STRATAVENT® Eliminator™ Nailable, RUBEROID® Modified Base Sheet, RUBEROID® 20, RUBEROID Heat-Weld™ Smooth or RUBEROID® Heat-Weld™ 25 base sheet mechanically fastened as described below;

Fastening Options: GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 12" o.c. in the field.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Fastening Options:

GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Anchor sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf, See General Limitation #7)

GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Anchor sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

GAFGLAS® #80ULTIMA™, RUBEROID® 20, RUBEROID® Mop Smooth, base sheet attached to deck with approved 1¼" annular ring shank nails and inverted 3" steel plate at a fastener spacing of 9" o.c. at the 4" lap and in two rows staggered with a fastener spacing of 9" o.c. in the center of the membrane.
(Maximum Design Pressure –60 psf, See General Limitation #7)

GAFGLAS® #75 Base Sheet or any of above Anchor sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Any of above Anchor sheets attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ insulation plates at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
(Maximum Design Pressure –60 psf, See General Limitation #7)

GAFGLAS® #75 Base Sheet or any of above Anchor sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –75 psf, See General Limitation #7)

Base Sheet:

(Optional) Install one ply of GAFGLAS® #75, GAFGLAS® #80 **ULTIMA™** Base Sheet, GAFGLAS® STRATAVENT® Eliminator™ Perforated, RUBEROID® Modified Base Sheet, RUBEROID® Mop Smooth, RUBEROID® 20 RUBEROID® Heat-Weld™ Smooth or RUBEROID® Heat-Weld™ directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq; (see General Limitation #4).

Ply Sheet:

One or more plies GAFGLAS® PLY 4, GAFGLAS® Flex Ply™ 6 sheet, #80 Ultima, RUBEROID® Mop Smooth or RUBEROID® 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional, required if RUBEROID® MOP Smooth or RUBEROID® 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® Energy Cap Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715 , Leak Buster™ Matrix™ 322, TOPCOAT® MB+, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote® roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

Maximum Design Pressure: See Fastening above.

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type B: Optional base sheet laid dry; base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation for Base Layer (Table 2) **When applicable: Steel plate only =S, plastic plate only =P**	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™, EnergyGuard™ RA Minimum 1.3" thick	1, 2, or 3	1:3 ft²
EnergyGuard™ RN Minimum 1.4" thick	1, 2, or 3	1:3 ft²
EnergyGuard™ Composite, EnergyGuard™ RA Composite Minimum 1.5 thick	3	1:3 ft²
EnergyGuard™ Perlite Minimum ¾" thick	1S(3.5"), or 3	1:2 ft²
EnergyGuard™ Fiberboard, EnergyGuard™ High Density Fiberboard Minimum 1" thick	1, 2, or 3	1:4 ft²

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details). GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ perforated laid dry or a layer of EnergyGuard™ or wood fiber overlay board on all isocyanurate applications.

Insulation for Top Layer (Table 2) **When applicable: Steel plate only =S, plastic plate only =P**	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
Any of the insulations listed for Base Layer, above.	**N/A**	**N/A**
EnergyGuard™ High Density Wood Fiber, EnergyGuard™ High Density Wood Fiberboard, EnergyGuard™ Recover Board Minimum ½" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Non-Asphaltic Fiberglass-Based Underlayment or Securock™.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® STRATAVENT® Eliminator Perforated(laid dry), RUBEROID® Modified Base Sheet, RUBEROID® Mop Smooth or RUBEROID® 20 directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq; (see General Limitation #4).

Ply Sheet: Two or more plies of GAFGLAS® PLY 4, GAFGLAS® FlexPly™ 6 ply sheet, #80 Ultima, RUBEROID® Mop Smooth or RUBEROID® 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See specification number for appropriate number of plies).

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. (See GAF application instructions for approved method of installation).

Surfacing: (Optional, required if RUBEROID® MOP Smooth or RUBEROID® 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® Energy Cap Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715 , Leak Buster™ Matrix™ 322, TOPCOAT® MB+, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote® roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

Maximum Design Pressure: **-45 psf;** (See General Limitation #7)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type C: One or more layers of insulation simultaneously attached; Base layer optional.

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation for Base Layer (Table 2) **(When applicable: Steel plate only =S, platic plate only =P)**	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™ RN, EnergyGuard™, EnergyGuard™ RA Minimum 1.3" thick	N/A	N/A
EnergyGuard™ Min. 1.4" thick	N/A	N/A
EnergyGuard™ Composite, EnergyGuard™ RA Composite Minimum 1.5" thick	N/A	N/A
EnergyGuard™ Perlite Minimum ¾" thick	N/A	N/A
Wood Fiber, EnergyGuard™ Fiberboard, EnergyGuard™ High Density Fiberboard Minimum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on all isocyanurate applications.

Insulation for Top Layer (Table 2) **When applicable: Steel plate only =S, plastic plate only =P**	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard, EnergyGuard RA Minimum 1.3" thick	1, 2, or 3	1:3 ft²
EnergyGuard™ RN Minimum 1.4" thick	1, 2, or 3	1:3 ft²
EnergyGuard™ Composite, EnergyGuard™ RA Composite Minimum 1.5 thick	3	1:3 ft²
EnergyGuard™ Perlite Minimum ¾" thick	1S(3.5"), or 3	1:2 ft²
Fiberglas Minimum $^{15}/_{16}$" thick	1, 2, or 3	1:2.67 ft²
Wood Fiber, EnergyGuard™ Fiberboard, EnergyGuard™ High Density Fiberboard Minimum 1" thick	1, 2, or 3	1:4 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. GAF requires either a ply of GAFGLAS® STRATAVENT® Eliminator™ Perforated laid dry or a layer of EnergyGuard™ Perlite or wood fiber overlay board on all isocyanurate applications.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Non-Asphaltic Fiberglass-Based Underlayment or Securock™.

Base Sheet: (Optional) Install one ply of GAFGLAS® #75, GAFGLAS® #80 ULTIMA™ Base Sheet, GAFGLAS® PLY 4, GAFGLAS FlexPly™ 6, GAFGLAS® STRATAVENT® Eliminator™ Perforated (laid dry), RUBEROID® Modified Base Sheet, RUBEROID® Mop Smooth or RUBEROID® 20 directly over the top layer of insulation. Adhere with any approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval the use of an overlay board is approved; see General Limitation #4.

Ply Sheet: Two or more plies of GAFGLAS® PLY 4, GAFGLAS® FlexPly™ 6 ply sheet, #80 ULTIMA™, , RUBEROID® Mop Smooth or RUBEROID® 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional, required if RUBEROID® MOP Smooth or RUBEROID® 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® Energy Cap Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715 , Leak Buster™ Matrix™ 322, TOPCOAT® MB+, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote® roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

Maximum Design Pressure: **-45 psf;** (See General Limitation #7)

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type D: Insulation and Base sheet simultaneously

All General and System Limitations shall apply.

One or more layers of any of the following insulations.

Insulation Layer loosely laid with firmly butted joints.	**Insulation Fasteners (Table 3)**	**Fastener Density/ft²**
EnergyGuard™, EnergyGuard™ RA, Minimum 1.3" thick	N/A	N/A
EnergyGuard™ High Density Fiberboard, EnergyGuard™ Fiberboard Minimum 1" thick	N/A	N/A

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Non-Asphaltic Fiberglass-Based Underlayment or Securock™.

Base Sheet: Install one ply of GAFGLAS® #75, GAFGLAS® #80 Ultima ULTIMA™ Base Sheet, GAFGLAS® STRATAVENT® Eliminator™ Nailable or RUBEROID® 20 base sheet applied over the loose laid insulation with 2" side laps mechanically fastened as described below;

Fastening Options: Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates are installed through the base sheet and insulation in 3 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf, See General Limitation #7)

Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates are installed through the base sheet and insulation in 4 rows 8" o.c. One row is in the 2" side lap. The other 3 rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –75 psf, See General Limitation #7)

GAFGLAS® #80ULTIMA™, RUBEROID® 20, RUBEROID® Mop Smooth, base sheet attached to deck with approved annular ring shank nails with a minimum embedment of 1" into the wood substrate and inverted 3" steel plate at a fastener spacing of 9" o.c. at the 4" lap and in two rows staggered with a fastener spacing of 9" o.c. in the center of the membrane.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates in 4 rows 12" o.c. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Ply Sheet: One or more plies GAFGLAS® PLY 4, GAFGLAS®, GAFGLAS® FlexPly™ 6 sheet, #80 Ultima or RUBEROID® 20adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional, required if RUBEROID® MOP Smooth or RUBEROID® 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® Energy Cap Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715 , Leak Buster™ Matrix™ 322, TOPCOAT® MB+, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote® roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

Maximum Design Pressure: See Fastening Above

Deck Type 1: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank decks

System Type E: Base sheet mechanically fastened.

All General and System Limitations shall apply.

Fire Barrier: (optional) FireOut™ Fire Barrier Coating, VersaShield® Non-Asphaltic Fiberglass-Based Underlayment or Securock™.

Base sheet: GAFGLAS® #80 ULTIMA™ Base Sheet, STRATAVENT® Eliminator™ Nailable, RUBEROID® Modified Base Sheet, RUBEROID® 20, RUBEROID® Heat-Weld™ Smooth or RUBEROID® Heat-Weld™ 25 base sheet mechanically fastened to deck as described below;

Fastening Options: GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 12" o.c. in the field.
(Maximum Design Pressure –45 psf, See General Limitation #7)

GAFGLAS® Ply 4, GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf, See General Limitation #7)

GAFGLAS® Flex Ply™ 6, GAFGLAS® #75 Base Sheet or any of above Base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field.
(Maximum Design Pressure –52.5 psf, See General Limitation #7)

GAFGLAS® #80ULTIMA™, RUBEROID® 20, RUBEROID® Mop Smooth, base sheet attached to deck with approved 1¼" annular ring shank nails and inverted 3" steel plate at a fastener spacing of 9" o.c. at the 4" lap and in two rows staggered with a fastener spacing of 9" o.c. in the center of the membrane.
(Maximum Design Pressure –60 psf, See General Limitation #7)

GAFGLAS® #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –60 psf, See General Limitation #7)

Any of above Base sheets attached to deck approved annular ring shank nails and 3" inverted Drill-Tec™ insulation plates at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
(Maximum Design Pressure –60 psf, See General Limitation #7)

GAFGLAS® #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec™ #12 standard, #14 or # 15 Screws and 3" Drill-Tec™ steel plate or Drill-Tec™ AccuTrac Plates, 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet. ***(Maximum Design Pressure –75 psf, See General Limitation #7)***

Ply Sheet: One or more plies of GAFGLAS® PLY 4, #80 ULTIMA, RUBEROID® MOP Smooth or RUBEROID® 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet or GAFGLAS® EnergyCap™ Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Optional, required if RUBEROID® MOP Smooth or RUBEROID® 20 is top membrane) Install one of the following:

1. Gravel or slag applied at 400 lbs./sq. and 300 lbs./sq. respectively in a flood coat of approved asphalt at 60 lbs./sq. or applied in a flood coat of Leak Buster™ Matrix™ 103 Cold Process Adhesive applied at a rate of 3 gal./sq.
2. GAFGLAS® Mineral Surfaced Cap Sheet, GAFGLAS® Energy Cap Mineral Surfaced Capsheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
3. Leak Buster™ Matrix™ 303 Premium Fibered Aluminum Roof Coating, at 1.5 gal./sq.
4. Leak Buster™ Matrix™ 715 , Leak Buster™ Matrix™ 322, TOPCOAT® MB+, TOPCOAT® Fireshield Elastomeric Roofing Membrane, applied at 1 to 1.5 gal./sq.
5. Leak Buster™ Matrix™ 602 MB Xtra Elastomeric Roofing Membrane, EnergyCote® roof coating applied at 1 to 1.5 gal./sq.
6. TOPCOAT® Surface Seal, TOPCOAT® Fireshield® SB Solvent based Elastomeric Roofing Membrane applied at 1to 1.5 gal./sq
7. Advance Green Technologies Photovoltaic Laminate solar energy collector auxiliary roof equipment installed in compliance with manufacturer's specifications and applicable Building Codes.

Maximum Design Pressure: See Fastening Above

WOOD DECK SYSTEM LIMITATIONS:

1 A slip sheet is required with Ply 4 and Flex Ply™ 6 when used as a mechanically fastened base or anchor sheet.
2. Minimum ¼" Dens Deck™ or ½" Type X gypsum board is acceptable to be installed directly over the wood deck.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE